

# The Madras Clinical Journal

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# The Madras Clinical Journal

JOURNAL OF THE MADRAS STATE BRANCH OF THE INDIAN MEDICAL ASSOCIATION  
(WITH WHICH IS INCORPORATED THE "MISCELLANY")

Vol. XXIX

September 1962

No. 3

## UNSUCCESSFUL PREGNANCY\*

M. MANUEL, M. D.,

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Our discussion to-day is on 'Unsuccessful Pregnancy'. This includes cases of habitual abortion, miscarriage and spontaneous interruption of pregnancy before the period of viability, i. e., the end of the 35th or 36th week of pregnancy, and all cases of intra-uterine death of the foetus before the onset of labour. A simple and satisfactory classification of the causes is not possible in the present state of our knowledge, and the following is merely adopted for want of a better one.

- I. Abnormalities in the genital organs of the mother.
- II. Genital disorders in the mother.
- III. Defects in the male parent.
- IV. Idiopathic group.

### I. ABNORMALITIES IN THE GENITAL ORGANS OF THE MOTHER

1. **Uterine Fibromyomata:** The liability to abortion varies with the position of the fibroid. If it is submucous,

the tendency to abortion is very great, less but still considerable if it is interstitial or intramural, while if it is subperitoneal the course of pregnancy may be but little interfered with apart from such accidents as red degeneration. It should be remembered that even very small interstitial fibroids may cause repeated abortions. During pregnancy they enlarge rapidly, but they involute just as rapidly in the puerperium, and so may be exceedingly difficult to feel on bimanual examination and may be missed altogether unless the greatest care is exercised, and possible examination under anaesthesia carried out and pregnancy avoided for a year afterwards.

2. **Backward Displacement of the Uterus:** This may be a cause of repeated abortion, though we know that in many cases in which pregnancy occurs in a patient with retroversion, the uterus rises up into its normal anteverted position as pregnancy proceeds. If, however, no

\* Lecture delivered on the occasion of the 34th Annual Conference of the Madras Medical Association.

other cause for repeated abortion can be discovered except a retroverted uterus, this should be cured by one of the ventrosuspension operations in which the round ligaments are shortened.

**3. Hypoplasia of the Uterus and Infantile Uterus :** The patient with an infantile uterus is usually sterile, and if pregnancy occurs, abortion is very apt to take place. The history is said to be rather typical. In the first pregnancy abortion occurs about the 6th week, in the second somewhat later, and so on until finally a living child may be born at term. Diagnosis usually rests largely on supposition and is arrived at only after exclusion of other known causes of abortion. Evidences of hypoplasia :

- (1) Vagina short and shallow ;
- (2) Fornices shallow and of equal depth ;
- (3) Cervix short, or long and conical ;
- (4) Uterus small: excessive anti-flexion is not uncommon; endometrial function is deficient. This deficiency may be reflected in various menstrual disorders. The onset of the periods may be at the usual age or delayed; the menses may be normal. The hypoplasia is, therefore, due to lack of uterine response to normal ovarian function.

**4. Double Uterus :** This is a rare cause of repeated abortion. There is often a double vagina which itself draws attention to the condition. Treatment depends on the extent of the deformity, of which there may be many degrees, varying from the cases in which there is a double vagina with two uterine horns divided above the level of the internal os, to

the septate uterus which is normal externally with the exception of a dimple at the fundus.

**5. Prolapse of the Uterus :** This rarely gives rise to abortion unless it is of extreme degree (procidentia). Repair of the pelvic floor should be carried out by an operation of the Fothergill type, but if possible, amputation of the cervix, especially high amputation should be avoided.

**6. Lacerated Cervix :** A deeply split cervix, especially if the tear is bilateral, is said to be a cause of repeated abortion.

**7. High Amputation of the Cervix :** The risk of abortion depends on the level at which the cervix is amputated, and it is probable that amputation at a low level is accompanied by little risk. Rest in bed throughout pregnancy may make abortion less liable to occur, but beyond that nothing can be done.

**8. Chronic Endometritis :** This condition is very largely given as one of the causes of habitual abortion and it is customary to curette the uterus when its existence is suspected.

**9. Chronic Pelvic Peritonitis :** Patients who suffer from this disease are usually sterile, on account of the closure of both Fallopian tubes by chronic salpingitis - but improperly treated cases may invite habitual abortion.

## II. GENERAL DISORDERS IN THE MOTHER

**1. Syphilis :** Syphilis does not usually cause interruption of pregnancy before the 5th month. In most cases the foetus dies in utero and is later expelled in a state of maceration, and it is known that about 33 per cent of all macerated foetuses are syphilitic.

**2. Chronic Glomerular Nephritis:** Abortion, usually preceded by intra-uterine death of the foetus, is a common occurrence, though in the milder cases pregnancy often goes to term.

**3. Essential Hypertension:** Unlike chronic glomerular nephritis, chronic hypertension is common in pregnancy and is a frequent cause of abortion or miscarriage. The hypertension may be familial, or may be a legacy of a previous eclampsia or pre-eclamptic toxæmia.

**4. Diabetes Mellitus:** This may be a cause of repeated abortion preceded by death of the foetus, though it is more usual for the foetus to die in the later months. To prevent it, close supervision is required from the start of pregnancy.

The intra-uterine death may be due to ketosis in badly controlled patients, but it may also occur in patients in whom there is no ketosis, as shown by the absence of ketone bodies from the urine. There is some reason to believe that the cause then is hypertensive toxæmia to which diabetic patients seem to be particularly liable. Generally speaking the risk of foetal death increases as pregnancy advances and it is very great after the 36th week. For this reason we now, in common with most obstetricians, advise Caesarean section at the end of the 37th week. The child at this time may be as large as one at full term, but it is said that they behave like premature babies and need much care. Their liability to hypoglycaemia should be remembered.

**5. The Rh Factor:** Investigations should always be undertaken to exclude it, especially if no other cause is apparent.

**6. Defects in the Germ Plasm:** It is well known to embryologists that in mammals with large litters a very large percentage (from 20 to 40 per cent) of the fertilized ova never reach maturity but die and are absorbed. This mortality is believed to be due to defective germ plasm rendering the vitality of the ovum so low that it is incapable of developing beyond a certain stage, or leading to the formation of pathological ova.

**7. Gonadotropic Hormone:** This appears in the urine almost immediately after implantation of the ovum, its presence forming the basis of the Zondek-Ascheim and Friedman tests for pregnancy. Its amount rises rapidly to peak which is reached about the sixtieth day after the first day of the last menstrual period, when a very large quantity is being excreted. The actual amount varies considerably and it is not unusual to find quantities being excreted at this time such as were formerly thought to be characteristic of hydatidiform mole or chorion epithelioma. The excretion only remains at the peak for a few days and then rapidly falls to a low level which is reached about the 100th to the 120th day and which is maintained till term. After delivery it disappears altogether in four or five days.

Theoretically, therefore, deficiency of gonadotropic hormone in early pregnancy might be responsible for abortion through failure to maintain the corpus luteum.

**8. Oestrin:** 99 per cent of the oestrin in pregnancy is in a combined and physiologically inert form till shortly before labour, when the amount of free and, therefore, active oestrin increases considerably. This increase in free oestrin may account for the

onset of labour. One of the chief functions of oestrin in pregnancy is to bring about the necessary growth of the uterus and other generative organs. It is conceivable, therefore, that a deficiency of oestrin might lead to habitual abortion, or that excess of "free" oestrin might so sensitize the uterus as to make it throw off its contents.

9. **Progesterin:** 4 to 10 mg. are excreted in twenty-four hours till about the seventieth day of pregnancy. From this level it then gradually rises, reaching its highest about the ninth month at which time about 70 to 120 mg. are being excreted daily. It disappears from the urine in from twenty-four to seventy-two hours after delivery. It will be evident, therefore, that between the period when the corpus luteum fails and the placenta takes over, there may be a gap during which the supply of progesterin is low. This interval is sometimes known as the "critical phase", when abortion is thought to be more apt to occur than at any other time in pregnancy.

10. **Thyroid Extract:** Good results have followed the use of thyroid extract though its mode of action is not understood. It is said that abortion is more likely to occur in women whose basal metabolic rate is low. One grain of the dried extract may be given daily throughout the whole of pregnancy, either alone or with corpus luteum (progesterone)

### III. DEFECTS IN THE MALE PARENT:

Recent observations go to show that abnormalities in the spermatozoa may be not infrequently a cause of unsuccessful pregnancy. The morphology of the spermatozoa is more important than numbers or motility,

and abnormal forms, e. g., variations in head length, changes in the nucleus and the presence of immature forms may lead to habitual abortion or even the birth of monstrous infants. Several samples must be examined before the spermatozoa can be pronounced abnormal. From observations and experiments on lower animals, there is reason to believe that sexual excess or defective physical condition of the male may lead to an increased abortion rate.

### IV. IDIOPATHIC GROUP:

In this group no cause can be discovered for the repeated abortions or miscarriages. It is usual to ascribe them to some hormonal or vitamin deficiency, these views being generally based on experimental results in rats or rabbits which are of doubtful applicability to women.

The following are some of the methods of treatment that are adopted in these cases:

1. **General Measures:** The patient's habits should be enquired into and any gross errors in hygiene corrected. In addition, certain precautions are necessary.

- (a) It is advisable to stay in bed during the time when a period would have occurred if the patient had not become pregnant and for three days before.
- (b) Sea bathing and all violent exercises should be avoided, such as bicycle riding, tennis and swimming.
- (c) Marital relations should be avoided entirely.
- (d) No drastic purgative such as epsom salts or castor oil should be taken.

**2. Vitamin E:** The mode of action of this vitamin deficiency is still unknown, but several suggestions have been made, based on experimental and clinical observation. Mason suggests on the basis of experimental work that it is essential either for the maintenance of the normal physicochemical state of the nucleus or for some phase of cellular metabolism involved in the synthesis of the chromatin molecule, and that it is particularly indispensable for those tissues in which cellular proliferation and differentiation are usually rapid. The anterior pituitary glands of rats fed on a diet deficient in vitamin E contain subnormal amounts of follicle stimulating and luteinizing hormone (prolan A and B). This suggests that vitamin E deficiency acts through the pituitary gland. Injection of prolan A and B, however, did not prevent the foetal resorption due to the deficiency. Prolonged vitamin E deficiency too causes hypothyroidism.

The preparation used is wheat germ oil of which there are several convenient preparations on the market, e. g., Fertitol (Vitamins Ltd.), Phytoferol (British Drug Houses), G. L. Wheat Germ Concentrate (Glaxo Laboratories) or the synthetic preparation—Ephynal (Roche Products).

Taking various reports together, it is apparent that the use of vitamin E in habitual abortion is followed by success in approximately 75 per cent of the cases treated.

**3. Vitamin C:** Ley has recently reported on the use of vitamin C in habitual abortion. He gives sufficient by the mouth to secure a daily excretion of 250–300 mg. in the urine.

Ten women were thus treated, all of whom had at least two previous abortions, and all produced living children at term.

**4. Normal Blood Serum:** Sellheim, in 1933, reported a series of 8 cases of habitual abortion treated by injecting serum of normal pregnant women. Rosenfeld thinks that 'serum from a normal pregnant woman contains everything essential for a normal pregnancy'.

### CONCLUSION:

It seems, therefore, that a moderate and fairly uniform degree of success follows the use of varieties of apparently unrelated therapeutic measures in idiopathic habitual abortions and it is not surprising if doubts arise in the minds of some observers regarding the real value of any of them.

It is evident that many more such controlled series are necessary before a final judgement can be passed on the value of any of the specific methods of treatment above described.

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# PERINATAL MORTALITY

M. MANUEL, M. D.,

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Perinatal mortality is due to the following causes :

1. Infection: (a) Respiratory (b) Gastro intestinal (c) Umbilical sepsis.
2. Pre-eclamptic toxæmia and eclampsia - which do not yield to treatment.
3. Hypoglycaemia in the new-born when a diabetic mother is not diagnosed and treated.
4. Rh incompatibility.
5. ABO incompatibility.

I like to talk something about the last two conditions. The foetus inherits the father's blood group as well as the other Mendelian factor, i. e. if the father is Rh positive, that child is Rh positive. Though Rh negative factor is supposed to be rare in India, it causes a serious problem. When the mother is Rh negative and the child is Rh positive inherited from the father, there is an exchange of the positive and negative blood in the foetal circulation. As soon as the mother receives the positive blood from her own foetus, her system produces antibodies which are sent back to the foetus. These antibodies are responsible for destroying the foetal cells and thus causing haemolytic disease of the new-born and the following are the manifestations of the Rh incompatibility.

1. Icterus gravis neonatorum
2. Severe anaemia
3. The enlarged liver and spleen with severe anaemia
4. Hydrops foetalis

It may be possible to save a few children with the first two conditions by exchange transfusion with Rh negative blood. Institutional treatment is imperative. In the last two conditions still-births are very common. And if there is a history of repeated still-births, it shows that there is a high titre of the antibodies in the maternal circulation and hence sterilisation should be advised.

**ABO Incompatibility :** In recent years we have come to know that there is incompatibility when the father and mother fall into different blood groups even though the mother is Rh positive.

According to these authors, the immunological mechanism in ABO incompatibility differs in several respects from that in Rh incompatibility. Rh theory entails the passage of red cells from foetus to mother while the antigen in ABO incompatibility appears to be secreted in soluble form by the foetal red cells and it traverses the placenta in that state. The ability to secrete this antigen is limited to certain foetuses and thus limits the number of cases in which maternal immunization occurs. Anti-A or anti-B antibody is normally present in the maternal serum and reaches the foetus, whereas Rh antibody is never normally present in either maternal serum or in the foetus. Anti-A and anti-B agglutinins, as well as univalent antibodies, can pass the placenta, whereas the evidence is overwhelming that saline Rh antibodies cannot do so. The foetal tissues of both secretors



and nonsecretors contain sufficient A or B substance to neutralize the ordinary anti-A and anti-B antibodies, though in this respect there seems to be a difference between A<sub>1</sub> and A<sub>2</sub>. Rh antibodies are not neutralised by tissue substances; hence, the presence of antibody in the foetus produces red cell destruction. A and B substances are present in all tissue cells, whereas the Rh substance is limited to red blood cells.

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# IS THERE A MEDICINE AGAINST CANCER?

PROFESSOR NIKELAI LAZAREV.

The name of honoured scientist Nikolai Vasiliyevich Lazarev, Leningrad pharmacologist, is well-known in this country. Many diseases are now treated with medicinal preparations evolved and studied in his laboratory. The two-volume hand book on the effect of harmful substance in production compiled by Professor Lazarev and his disciples has been translated into many languages. The Lazarev school is successfully elaborating the theory of the so-called non-specific stimulation of organisms and other important problems.

Some time ago Professor Lazarev turned to research on tumour diseases. In the Oncology Institute of the U. S. S. R. Academy of Medical Sciences in Leningrad he now heads the experimental oncology laboratory. A correspondent of the *Nauka i Zhizn* magazine M. Popovsky interviewed the scientist in the Oncology Institute.

## A Search the World Has Never Known:

The struggle against tumour diseases is becoming a "problem No. 1" for entire world medical science. This is not surprising for in the diseases statistics cancer has been claiming an ever more important place with every passing decade.

The data for the 23 largest capitalist countries published by the World Organisation in 1952 show that whereas at the beginning of the 20th century not more than six per cent of all deaths were accounted for by cancer, in 1950 this figure rose to 14-17 per cent.

The efforts of science looking for drugs against malignant tumours grew in proportion to the mounting cancer danger. Today no one can accuse scientists that their search for anti-cancer medicines is not vigorous enough. A very large number of institutes and laboratories in various countries are engaged in this search. The number of tested chemicals runs into dozens of thousands. Suffice it to say that the German researcher Lettre has investigated more than 3,700 preparations.

Another eminent scientist, the man who developed sulfonamides, Domagk, tested more than 15,000 compounds. In an attempt to discover an effective drug, American laboratories and institutes doing cancer research are experimenting with up to 40,000 substances annually. One can safely say that the history of science does not know a single case when the search for a drug against a disease was conducted on such a giant scale. Neither the search for medicines to cure tuberculosis nor experiments to find a preparation effective against syphilis (let's recall the famous works by Ehrlich) assumed such tremendous proportions as the drive we are witnessing today. But unfortunately the results of these searches are still unsatisfactory.

Can it be said that all the efforts of chemists and pharmacologists, cancer fighters, have been in vain? No, this is not so: some substances have been found. One could name, for instance, the preparations evolved by our compatriot, Corresponding Member of the Academy of Medical Sciences L. F. Larionov—sarcolysin, dopan and others, which are not bad at all. Interesting suggestions have

been made abroad as well. And yet, the contribution of scientists, especially pharmacologists, to the fight against cancer is more than modest. Why?

### **New Ideas Wanted:**

Modern searchers for anti-cancer drugs to a considerable extent follow the path suggested by Paul Ehrlich more than half a century ago. Even Ehrlich's term—chemotherapy—has been preserved. As is known, the idea of the great German physician and chemist, basically speaking, was to develop a preparation which, while doing no harm to the patient's cells and tissues, would selectively hit pathogenic microbes. Ehrlich's idea was brilliantly confirmed by the discovery of the so-called sulfonamide preparations—streptocide and sulfidine and later, antibiotics. However, the chemotherapy of cancer in the purely Ehrlich sense has produced little of value to the clinician so far. True, quite a few remedies have been found which have a strong effect on the disease. But unfortunately they exert just as disastrous effect on healthy tissues as on the malignant ones. If we recall that Ehrlich called substances he was looking for "magic bullets," we must state that we do have bullets but they are not magic at all. They hit both the diseased and healthy tissues.

The second handicap that has not been possible to overcome so far is the rapid development of drug resistance by cancer cells, their adaptation to anti-cancer drugs. Cancer cells often readily respond to the treatment with some chemical at first, but very soon this chemical becomes ineffective. I recall one of our cases treated with a preparation called thioteft (thiophosphamidum).

She suffered from a tremendous amount of liquid which had oozed into the abdomen following the dissemination of cancer cells to the abdominal organs. She was given the first dose of thioteft and the doctors were astounded to see how rapidly the liquid began to disappear. But subsequent administration of thioteft proved useless: the cancer tissues no longer responded to the drug and the patient died.

There is one more circumstance, in my opinion, which prevents us from finding a cure for cancer by the Ehrlich method. Everybody knows that the main evil of the cancer disease is metastases. Now and then cancer cells become detached from the basic tumour and are carried to an increasing number of organs by the flow of blood, lymph and other ways. This results in the formation of secondary tumours which are often even more dangerous than the primary one. Thus we see that metastases are our greatest enemy. Yet laboratories working out lines of attack on cancer more often than not study only the effect of a chemical on the tumour proper and stage their experiments accordingly. In most cases these are made with mice or rats inoculated with cancer cells. Then the drug under test is injected into the animals and a comparison is made between the rates of tumour growth in these and other animals which do not receive the drug and serve as controls. Thus the contradiction arises between the task to find a remedy against metastases and the most widespread methods of search.

What is to be done? Should we give up mass experimentation with various preparations? (These tests remind one of the old gold digging

methods repeatedly described in literature, when a vast amount of sand is washed on a sieve sometimes only to find a tiny particle of gold. But suppose the sieve of experiment, sifting out one substance after another, does yield true gold in the end—a remedy curing cancer? No, we should not close this road altogether. But the fact that hundreds of thousands of medicines already tried out have not advanced us very far make us look for other ways. In what direction? Let us see.

### **200 Per Cent of Death Equals Life:**

The first difficulty that faces the searchers for anticancer drugs is that such preparations are toxic for both tumour and the normal cells and tissues of an organism. One may, of course, declare such toxic preparation to be unsuitable and be done with it. But another approach is to try and use it. In this case one will have to make the organism tolerate the toxin for its own benefit. I must say that the idea of increasing man's resistance to unfavourable conditions, including toxins, has long been intriguing my disciples and myself. A pilot high up in the sky, a diver deep in the sea, a steelman facing the blazing furnace, a chemist dealing with poisonous substances—all of them, like people of many other trades, need additional reserves of strength in difficult moments of their work. We have long been looking for a preparation that would temporarily relieve the organism of fatigue, poisoning effects and overstrain. Diabazol which we have found can be put into the category of such preparations. It has been proved to have a great enervating effect on man and animals in case of poisoning, oxygen deficiency and even infectious diseases. This idea—

to give additional strength to an organism at a difficult moment—has prompted Galina Ivanovna Felistovich, a staff member of our laboratory to make an interesting attempt. She treated laboratory mice inoculated with the Crocker sarcoma with a preparation from the group of pyrimidine derivatives. As long as the dosage remained small, the animals did not benefit from the treatment at all. The tumours kept growing with the drug producing almost no effect on them. They began to diminish only after Felistovich had drastically increased the dosage. It was found that the drug was toxic for the organism: it affected those organs where cell proliferation and growth is most intense, i. e. the bone marrow and intestinal wall. And it is there that the anti-cancer drug, while inhibiting cell multiplication, exerted its pernicious effect.

A rather curious entry appeared in Galina Felistovich' laboratory log one day: the test animals received twice the lethal dose of the drug. Two hundred per cent of death! But another entry made at the same time said that one more preparation—a stimulator of cell growth—had been injected into the rats afflicted with the Crocker sarcoma. A queer thing happened: most animals did not perish and their tumours sharply diminished in size. Evidently this stimulator accelerated the processes of the growth and propagation of the normal cells, neutralising the pernicious effect of the anti-cancer drug. At the same time there was no marked decrease in the effect of the latter on the tumour.

Another interesting detail: the cell growth inhibitor and the cell stimulator were "relatives" in their chemical composition.

There is no need to make far reaching conclusions from G. I. Felistovich' experiments. (There is a long way from experiments with rats and the treatment of people in hospital). But one thing is beyond doubt: the experiment described above offers a new line of approach to the problem of the toxicity of anti-cancer drugs.

#### **Habits can be Overcome :**

I shall dare to assert (and indeed there is no exaggeration in my statement) that it is not so very difficult for a competent pharmacologist to-day to find a drug effective against some malignant tumour at least. But these drugs, even if they are of low toxicity for the patient, have, as a rule, another serious drawback of which I spoke above: the organism gets accustomed to them very soon and stops responding to them. Thus the science of cancer treatment faces two new problems today :

1. How to prevent the drug resistance of tumours.
2. What is to be done when tumours have developed it.

I think—and this is no exaggeration again—that the pharmacologists will find it extremely difficult to supply the answers. The old procedure in such cases was simply to give up the drug. The “bad habits” of malignant tumours were considered inveterate. Recent work by Moscow oncologists seem to suggest that adaptation to drugs can be overcome.

In a special magazine my colleagues and I read an article about an observation made by I. B. Sorokina, staff member of the laboratory headed by the young Moscow scientist G. L. Zhdanov. This observation seemed

to us so important that we gave it the name of its discoverer. The “Sorokina phenomenon” consists in the following. She treated animals suffering from the same Crocker sarcoma with two preparations, dopan and mercaptopurine, which she gave to the mice every day and at one time. It turned out that treatment with this combination had almost no advantage over the one when each drug was used separately. I. B. Sorokina then changed her tactics. She began to alternate the drugs, giving dopan on the first day, and mercaptopurine on the second and so on. This was followed by something quite unexpected: the curing effect immediately increased almost three-fold. What had happened ?

The Moscow researcher did not publish her own hypothesis of the mechanism of the action of anti-cancer preparations in her experiment. Yet it seems to us that Sorokina's phenomenon is an excellent gift to all who seek the possibility of preventing cancer cell adaptation. I personally would interpret the phenomenon in the following way :

The drug used against the tumour had somehow inhibited its vitality and disturbed some biochemical processes in the malignant cells. The cells responded to this attack with a counter-offensive: they restored their metabolism and their strength and with the help of other processes “set going” other biochemical reactions. A repeated blow from the same drug would be less telling since the process of adaptation had set in. I would compare this situation with what the surgeon often observes when he clamps or cuts a large vessel of a limb. Very soon after this the blood begins to flow again into the limb through rapidly developing

by-passes—collaterals and circulation returns to normality. And suppose now that hardly had the collaterals appeared, when the surgeon again clamped the newly formed blood vessels. Such interference would be an incomparably more telling blow to the organism, for it is not easy to develop another system of by-passing vessels. Something of this kind takes place, I think, in the cancer cells against which the doctor prescribes a different drug every day. One day the blow hit some biochemical connections and hardly had the cell time to adjust itself to the change when another blow is dealt the next day smashing these new "vital communications". And the following day the blow is struck at the old site. Alternate treatment with two preparations "confuses the cell", if one may use this expression. Its drug resistance is no longer of any avail.

I repeat that this is only my personal opinion about the experiments of my Moscow colleague Sorokina. But these experiments doubtlessly contain one of the new approaches to the struggle against cancer cell adaptation which are greatly needed by the pharmacologist in his laboratory and the doctor in the hospital.

#### **Offensive is Mounting:**

**Metastases...**The doctor feels particularly helpless in face of this evil freak of cancer. Nobody can predict when and which organ the stray cells from the primary tumour will invade. Incidentally, metastases are not a very frequent phenomenon in cancer. The blood of most cancer-bearing patients contains a huge amount of free cells but it is comparatively seldom that these cells get stuck in the capillaries and take a permanent residence there, giving rise to a new

tumour. This can be explained only by the resistance of the organism itself. We fight the dangerous wanderers in our blood and in many cases gain the upper hand. Must the pharmacologist help the patient in this fight? He certainly must. But how?

The oncologists—experimentators know, for instance, the following fact: the amputation of a cancer bearing paw of an animal results in the wide spread of metastases. This, however, does not occur when a healthy paw is amputated. This sounds paradoxical but the presence of the basic primary tumour evidently frustrates somehow the appearance of fresh tumours. One must obviously heed the voice of nature which prompts us that it is possible to find chemicals capable of preventing metastatic cells from "taking".

Among the new avenues explored by our laboratory there is one path which is worth while mentioning. It is known that malignant tumours are more susceptible to the blows of anti-cancer agents when active cell proliferation is taking place in them. We decided to take advantage of this phenomenon to make our preparations more potent. The experiments performed by M. N. Bychenkova, L. N. Zaleskaya and R. N. Polkina may seem bizarre at first glance. They gave cancer-bearing animals a substance which stimulated ... cell multiplication even more. This method, it would seem, must accelerate the death of the animals. However, the animals were irradiated with x-rays at the the same time. Such treatment proved more effective when the irradiated animals had not received the cell growth stimulator. We say among ourselves jokingly



that on getting a medicinal reinforcement the cell had become "conceited" and it is then that we caught it. But no matter what the reason for our bit of success might be, it must not be disregarded. I should like to hope that the "provocative" method of treatment of cancer, well grounded and tried out many times in laboratory experimentation with animals, will become part of the scientists' arsenal of anti-cancer weapons.

The scientific forces of our country are getting ready to tackle the cancer

problem even more vigorously. By decision of the Government powerful anti-cancer centres are being set up in Leningrad and Moscow. New oncological institutes are appearing in the capitals of all the Union republics. The World Congress on Cancer which will be held in our country in 1962 will be a kind of a review of the efforts of international oncology. I should like to hope that Soviet researchers will come to that congress with their own great and original achievements.

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## NEWS AND NOTES

### TELE COBALT THERAPY FOR CANCER

A latest type of tele cobalt unit has been installed in Dr. K. R. Doraiswami's clinic, 29, Edward Elliotts Road, Mylapore, Madras-4. This unit can be used for fixed, arc and rotational treatments and hence cover the entire field in the treatment of various types of cancer. This will be the first private installation in Asia.

This equipment was supplied by the Atomic Energy of Canada through their agents, the International General Electric Company (India) Private Ltd.

At a pleasant function on the 16th September, the unit was switched on by Shri Kamaraj, chief minister of Madras, the function was presided over by the health minister, Srimathi Jothi Venkatachalam. A large gathering of doctors was present.

# NEWS AND NOTES

## INTERNATIONAL CONFERENCE ON TETANUS

An international conference on the Prevention and Treatment of Tetanus will be held from Friday 8th November, to Sunday, 10th November, 1963, in Bombay. The subjects to be discussed will be:

1. Incidence of tetanus in various parts of the world and epidemiology of the disease.
2. Aetiology, pathogenesis and clinical features of tetanus.
3. Prevention and treatment :
  - (a) Dosage of A.T.S. for prevention as well as for the treatment of tetanus.
  - (b) Use of tetanus toxoid in the prevention and treatment of tetanus.
  - (c) Separate administration of tetanus toxoid and other preventive vaccines according to a fixed schedule, and combined administration of toxoid and other vaccines in a single formulation in prevention of tetanus.
  - (d) Prevention of tetanus in surgery.
  - (e) Use of antibiotics for the prevention and treatment of tetanus.
  - (f) Importance of the use of artificial respirators and tracheotomy in the treatment of tetanus.
4. Pharmacology of the muscle-relaxant and anticonvulsant drugs and their use in the treatment of tetanus.
5. Technical problems in connection with production of biologics necessary for the prevention and treatment of tetanus.
6. To consider the feasibility of recommending to the Government to declare tetanus as a notifiable disease.
7. To suggest problems for further research.

A 3-day conference will be held. The language of the conference will be English. Free accommodation will be provided by the Organising Committee for those authors whose papers are accepted by the Selection Committee. The cost of return 1st class fare of those authors in India whose papers are selected will be paid by the Organising Committee.

Those who are willing to contribute and read a paper should contact the Organising Secretary, Study Group of Tetanus, K. E. M. Hospital, Parel, Bombay-12 (India) before March, 1963.

## REVIEW

**'Mediscope' — Fourth Anniversary Special Number — August 1962 —**  
Editor: Dr. B. Rama Rau — Published at 18, Sadullah Street, Madras-17 —  
Pages 134 — Price Rs. 3/-.

This fourth anniversary special number of 'Mediscope' has been attractively published and maintains its usual standard in the excellence of its scientific contents. Dr. C. Satyanarayana has given a concise review of surgery in otosclerosis and can be read with interest both by the practitioner and the specialist. The development of the various surgical procedures in the management of otosclerosis has been well illustrated and the author's approach is given in detail.

That physiotherapy has a place in the management of osteoarthritis both in the acute and chronic stages is stressed in an interesting paper by Dr. Susilananda Sen. Doctors D. Bhaskara Reddy and R. C. Misra have reviewed lymphnode biopsies during a ten year period in the Andhra Medical College and have selected for study 62 cases of lymphosarcoma. The frequent association of lymphatic leukemia with lymphosarcoma has been noted and requires further study by the pathologist in conjunction with the clinicians.

Venereal diseases have been dealt by two authors. Dr. P. N. Rangiah has discussed the venereal diseases other than syphilis among women and children and Dr. Rama Ayyangar has taken up granuloma venereum. Both the authors have discussed their subjects fully but briefly giving statistical data wherever necessary and interspersed liberally with clinical photographs. A few recent trends in the treatment of certain dermatological conditions has been very briefly dealt by Dr. T. V. Venkatesan.

'Hydatidiform Mole' is taken up for discussion by Dr. Vishnu Sarma. Appropriately interspersed with 18 illustrations with diagnosis, clinical and microphotographs, Dr. Sarma has briefly discussed the aetiology, pathology, diagnosis and treatment of this condition. In the management of hydatidiform mole, the limitations and dangers of vaginal evacuation has been stressed and the indications for abdominal or vaginal hysterotomy as alternate useful surgical procedures has been mentioned. The prevention of maternal morbidity, which is still considerably high in our country is brought out in a brief article by Dr. M. D. Adatia. Foetal abnormalities and the possibility of their prenatal diagnosis and their incidence are discussed in a paper by Dr. Vatsala Bai.

In addition, this special number contains other interesting articles on skeletal fluorosis, hondro-osteodystrophy, prevention of blindness, uveitis, etc. and these enhance the value of this issue. If better care is taken in the correction of the proofs and in the preparation of the half tone blocks, this number will rank among such magazines published from the U. K. and the States.

— A. G. L.

**'Probe':**—A Himalaya Drug Publication-Vol. I, No. 5 —June 1962 — Bimonthly — Dr. D. Naoroji Road, Bombay 1.

Messrs. Himalaya Drug Co., Bombay are publishing the 'Probe' as a bimonthly publication exploring ancient and modern medical learning. Being pioneers in the field of synthesising of ancient and modern drugs, the publishers are well qualified to 'explore ancient and modern medical learning' in the 'Probe'. But one fails to find much of ancient medical learning in this issue.

The importance of the examination of the hand for diagnosis is stressed by Dr. H. V. Sardesai. Surgical correction of the saddle nose deformity is dealt by Dr. R. J. Maneksha. That ancient medicine should be more fully explored in the discovery of a remedy for diabetes mellitus is stressed by Dr. Y. A. Daveliwala. Dr. V. V. Gupte in his paper on 'Blindness' has put in a plea for integrating the prevention, cure and the rehabilitation of the blind people by coordinating the works of the public health authorities, ophthalmologists and social workers. The author has done well in striking a warning against the existing mania for mass cataract surgery that 'optimum surgical perfection is possible only when a patient comes to a hospital than when a hospital goes to him'. A short note on 'Dermatoses' is given by Dr. T. V. Venkatesan.

In addition, useful abstracts from reputed journals and a few pages in lighter vein on 'the ingenuous intern in rural India' are interspersed in this issue.

A colour picture of 'Pterocarpus Marsupium'', an indigenous plant used in the treatment of diabetes and a short note on this plant is also given and may help to rouse the curiosity of the research student.

The practitioners will welcome the 'Probe' in the field of medical journalism in India.

— A. G. L.

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# ABSTRACTS AND EXCERPTS

## HARMFUL EFFECTS OF DELAY IN DIAGNOSIS OF DIABETES MELLITUS:

Of the early complications the commonest is sepsis: repeated boils or carbuncles; vulvitis, vulval boils and vaginitis (associated with severe pruritus); balanitis. Although not usually serious, these are troublesome and distressing, responding only to treatment of both the sepsis and diabetes. It is still accepted practice to radiograph the chest of all newly diagnosed diabetics to exclude the possibility of pulmonary tuberculosis.

After varying periods of diabetes, complications follow usually in the sequence of neuropathy, retinopathy and then diabetic renal disease. This combination of complications is referred to as the long-term syndrome or the diabetic triopathy, these being caused by specific changes in the blood vessels of the retina, the kidney and certain nerves. In diabetics atheroma occurs more rapidly and more severely, declaring itself at a much earlier age.

It is clear that there is an urgent necessity to reduce the delay in the diagnosis of diabetes mellitus. As many patients have no symptoms of simple diabetes at the time of diagnosis made as a result of one of the long-term complications, the early diagnosis can be made only by routine urine or blood-sugar tests. Urine testing should be carried out as a routine whenever possible, but certainly in those at risk. People in middle life should have regular tests, probably at yearly intervals.

— A. G. Backett, B. M., M. R. C. P., *Practitioner* 189, 57-64 1962.

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## THE PRESENT POSITION OF ORAL TREATMENT OF DIABETES: EXPERIENCE WITH 3,000 DIABETICS.

While agreeing with the generally held view that the juvenile type of diabetes requires insulin, while that with onset in maturity tends to respond to sulphonylurea derivatives or to one of the diguanide preparations, he points out that there are exceptions in both groups and that patients must be selected individually according to their response to their treatment. The aim is to achieve a fasting blood sugar level below 150 mg. per 100 ml., a postprandial level not exceeding 200 mg./100 ml., and a daily urinary sugar excretion of less than 5 g.

The author's drug of first choice is tolbutamide. If control is not achieved with this compound alone one of the diguanides is added as a trial, the combined therapy having the advantage that the latter drug can then usually be given in relatively low dosage. Regular haematological examinations are recommended to detect the fortunately rare granulocytopenia which may occur, especially with the diguanide compounds.

— A. Lenhart. (Lainz Hospital, Vienna) *Abstracts of World Medicine* 31, 282 (1962).

**TREATMENT OF ACUTE GINGIVITIS:**

Penicillin chewing-gum is found 'highly effective' in the treatment of the acute phase of ulcerative gingivitis, when the results of a clinical trial in which its use was compared with an ascorbic acid-peroxide preparation ('ascoxal'), containing ascorbic acid 100 mg., sodium per carbonate 70 mg., and copper sulphate 0.2 mg. dissolved in two tablespoons of warm water to make a mouthwash. Each portion of the chewing-gum, weighing 1 g., contained 5000 units of benzylpenicillin. Eight pieces were prescribed with directions that each should be chewed for four hours. One or other of the two preparations was prescribed to every patient in the series, the treatment being distributed alternately in such a manner that the assessor should not know which was being used in any individual case. After initial bacteriological confirmation of the diagnosis all patients were seen after forty-eight hours and any clinical improvement noted by the original observer according to a three point scale. The results showed plainly that after forty-eight hours nearly all the patients treated with penicillin chewing-gum had responded well whereas most of those treated with the ascorbic acid-peroxide compound showed little or no improvement.

— *The Practitioner* 188, 834 (1962).

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**URINARY INFECTION AND ANAEMIA IN PREGNANCY:**

The incidence of urinary infection has been determined in 463 cases of anaemia in pregnancy; they were compared with 447 normal pregnant women. The great majority of patients and controls had been receiving routine prophylactic iron and folic acid. Urinary infection was more than twice as common in the anaemic patients as in the controls. In 30 out of 53 cases the infection cleared on antibacterial drug therapy and in most of these the anaemia also responded.

Only 16 patients presented with the clinical signs and symptoms of pyelitis or cystitis. In 82% the infection was quite symptomless. Routine laboratory investigation of the urine in pregnancy would, therefore, appear to be advisable, especially at the beginning of the third trimester. Many cases of urinary infection in pregnancy are undoubtedly missed or erroneously diagnosed as albuminuria as a result of simple side-room testing. Urinary infection should be suspected in all cases of anaemia which have not responded to routine iron and folic-acid therapy, and once diagnosed should be treated promptly and energetically.

— *Giles, C., & Brown, J. A. H. Brit. Med. Journal* - July, 1962 p. 10.

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**FOLIC ACID METABOLITES IN WHOLEBLOOD AND SERUM IN ANAEMIA OF PREGNANCY:**

The authors have determined the folic acid and folinic acid levels in whole blood and serum of pregnant women aged 16 to 42 years delivered at the Hebrew University Hospital, Jerusalem, using three microbiological



assay methods. Among the 1,500 women examined, 420 (28%) were found to be anaemic at the time of delivery (i. e. haemoglobin levels below 10 g./100 ml.). Significantly low total folic acid values were found in whole blood as well as in serum in about half the patients and these low values were frequently associated with low serum levels of iron and/or vitamin B<sub>12</sub>. There was no correlation between the low values and the type of the anaemia. A characteristic hyperchromic macrocytic anaemia was found in only 7 patients, the anaemia in the majority being dimorphic.

Since examination of foetal blood showed that it contained about 8 times more folic acid than did the corresponding maternal blood, whereas the folic acid content was only twice as great, the authors suggest that conjugated folic acid may be mobilized from the maternal erythrocytes and find its way across the placenta to the foetus, where it is found mainly in its metabolically active forms. Large foetal demand is therefore mainly responsible for a relative folic acid deficiency in the mother and thus contributes to the development of the anaemia of pregnancy.

— Izak, G. and others, *American J. of Clinical Nutrition*,  
9, 473-77 (1961) *From Abstracts of World Medicine*.

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### VITAMIN-B<sub>12</sub> DEFICIENCY IN PREGNANCY AND THE PUERPERIUM:

Seven women with tropical malabsorption syndrome who had megaloblastic anaemia of pregnancy associated with vitamin B<sub>12</sub> deficiency were investigated, together with their babies.

The women had a moderate to severe anaemia and low serum vitamin-B<sub>12</sub> levels. Breast milk vitamin B<sub>12</sub> levels were similar to serum levels. The babies had no anaemia, and had much higher levels of serum vitamin B<sub>12</sub> than their mothers. One baby had "intermediate" megaloblasts in its bone-marrow.

Babies born of and suckled by vitamin B<sub>12</sub> deficient mothers may have lower body vitamin B<sub>12</sub> stores, may receive less vitamin B<sub>12</sub> in breast milk feeds, and may be in danger of frank vitamin B<sub>12</sub> deficiency.

— Baker, S. J. and others, *Brit. Med. Journal*,  
June 16, 1962, 1658-62.

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### PREVENTING CANCER OF UTERINE CERVIX:

In England and Wales about 2,500 women die every year from cancer of the uterine cervix. The case for exfoliative vaginal cytology is that these deaths can be prevented by the early detection of cancerous cells followed by cervical biopsy and appropriate treatment.

Papanicolaou's method is essentially a screening test not aimed specially at the occasional out-patient but at all patients at risk—that is, it is usually made on a cervix of normal appearance. So accurately do the exfoliated cells reflect the histological picture that a positive smear read by an expert can now be regarded as an instruction to the clinician to proceed to take a biopsy specimen. False positive smears are rare in practice.

The chief target for exfoliative cytology is carcinoma in-situ or carcinoma in a pre-invasive stage. We are indebted to the Copenhagen school for their long-term study of cervical carcinoma-in-situ. By 1955 Petersen had shown clearly that it commonly develops into true carcinoma. About one-third of their patients developed carcinoma. The interval between onset of carcinoma-in-situ and development of invasive carcinoma may be up to 15 years, but the average interval is probably between 7 and 10 years.

In their carefully planned study, D. A. Boyes, H. K. Fidler, and D. R. Lock (B. M. J. 1962, 1, 203) have described how 1,200 general practitioners in British Columbia now screen about one third of women in their sexually mature years. During the period 1955–60, the incidence of invasive carcinoma of the cervix has fallen by about one-third in that Province and is likely to continue to fall as more patients volunteer for the test, and this despite an overall rise in carcinoma of the cervix throughout Canada. The equally important field studies of R. F. Kaiser and colleagues in the U. S. A. emphasize that not only patients with carcinoma-in-situ but also a surprising number with early invasive carcinoma are detected who would not have reported unless invited to submit to the test. The ideal, seldom achieved, is a test every 6 months, but a great measure of protection is obtained by a yearly test read by an expert.

We can expect from the clinically normal cervix about 10 per 1,000 positive or suspicious smears. On an average, carcinoma-in-situ will be found in about 3 to 4 per 1,000. The remaining 6 per 1,000 will show a condition which may progress to carcinoma-in-situ.

— *Brit. Med. Journal*, June 30, 1962, Editorial.

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## THE PHYSICIAN AND HIS CONTINUING EDUCATION IN THE MOFUSSIL CHRISTIAN HOSPITAL IN INDIA :

The growth of the physician will depend on the way he has learned to use his mind rather than on what he was able to store in it during medical college days. The medical college does a real service to the standard of medical practice if its goal is to render the professor dispensable to the student at the earliest possible moment, recognizing that the university is a place of the mind, and the mind is an activity, not only a repository. Sir William Osler felt that post-graduate study was 'a habit of mind only to be acquired, as are other habits, in the slow repetition of the practice of looking at everything with an inquiring spirit'.

Scientific progress in the past 50 years has been greater than what occurred in the preceeding 5,000 years. Through the scientific contributions of clinical medicine, clinical pathology, medical bacteriology, nutrition and endocrinology, the medical profession has risen from purely an art to a true science.

Maintaining a core of requisite knowledge that is up to date requires systematized and regular study. Such study is not a luxury. The problem of making such time available varies in severity depending upon where the doctor works. The general practitioner in solo practice faces an acute problem. There is the temptation here for the physician to neglect the scientific and theoretical side of medicine and to concentrate on developing a high degree of skill in the art of medicine. Willingness to spend some of his income on medical books and literature, taking active part in medical society meetings and breaking away for brief refresher courses would be ways and means at his disposal to avoid the pitfall.

Open eyes, an inquiring mind, and an ever-ready note book are essential tools if one is to profit from the clinical material constantly available. Burning the midnight oil may also be necessary to convert the accumulated information into applicable knowledge. Though the doctor may wish to build up his own personal library, this should not be a substitute for a central adequate hospital library containing essential and basic text books. The books should be renewed periodically. French's Index of Differential Diagnosis, the latest edition of Current Therapy and volumes on operative surgical techniques and other specialities should be included in the library. Periodicals both general and for important specialities should be available in the hospital library. As pressure of work can and does limit the time available for reading, abstracting journals like "Medical Review of Reviews" can be very useful.

Each of us needs experience of selecting some subject and studying it thoroughly. This can be a very rewarding experience, which helps to fashion a tougher mind. The keeping of careful clinical notes and studying them where it seems called for, the writing up of cases of special interest or contributing to the medical correspondence column are exercises which contribute to one's own education. P. C. Ray once stated, 'The joy of learning lies not merely in its monopolistic possession, but in sharing its secrets with others. Knowledge thrives on diffusion.'

Every effort is made to allow some time for each doctor in our hospital to get away occasionally for some type of medical study. The Christian Medical College, Vellore has made a real contribution to medical education in India with the establishment of the annual refresher course for general practitioners. One of our staff who had the privilege of attending this course found it most rewarding. The notes from this course are also profitable to other staff members as they meet together for a report on the course.

— P. W. Yardy MD, Umri, Yeotmal, Journal,  
C. M. A. I. 37, 369-374 ('62)

# ASSOCIATION NOTES

## BRANCH NOTES

### Chettinad Branch :

A combined meeting of Chettinad and Pudukottai branches of the Indian Medical Association was held at 5 P. M. on Monday the 30th July 1962 in the lecture hall of the Alagappa Training College, College Campus, Karaikudi, Ramnad District.

Subject : SYMPOSIUM ON TUBERCULOSIS

Moderator: Dr. K. Balakrishnan, M. B., B. S., T. D. D.

Speakers : 1. Dr. V. K. Ramachandran, M. D., T. D. D.  
'Pulmonary Tuberculosis'

2. Dr. A. S. Annamalai, M. B., B. S.  
'Tuberculosis of Bones and Joints' supported by x-ray films.

Discussion and dinner followed and the meeting terminated with a vote of thanks by the Hony. Secretary, Chettinad branch.

### Erode Branch :

1. A meeting of the association was addressed by Dr. Miss Manuel, M. D., C. M. C. Hospital, Vellore on 24—5—1962. She spoke on 'Anaesthesia in Obstetrics'. 18 doctors attended.

2. Dr. B. S. Viswanathan presiding, a meeting of the Erode Medical Association was held on 4th August, 1962. Dr. D. H. Somervell spoke on 'Some Aspects of Radio-therapy'. 20 doctors attended. Dr. Somervell spoke at length on the effect of deep x-ray and radium on malignant growths in various parts of the body. He also discussed the effect of combined surgery and radiotherapy as a means to cure early malignancy. Dr. P. K. Krishnamurthy was the host.

### *Annual Meeting*

3. The annual meeting of the Erode Medical Association, branch of the I. M. A. was held on 31—8—1962 at 6 P. M. in Erode Medical Library Hall with Dr. E. V. Venkataraman in the chair. 60 doctors from Coimbatore and surrounding places attended.

The annual report was read by the secretary, Dr. M. N. Shenoy, which showed an increase in membership and allround increase in the activities of the association. 10 clinical meetings were held during the period 1961-62.

The following office-bearers were elected for the period 1962-63.

President	: Dr. M. N. Shenoy
Secretary	: Dr. P. K. Krishnamurthy
Treasurer	: Dr. M. M. Shenoy
Representative on the State Council	: Dr. L. K. Muthuswamy
Representatives to the Central Council	: Dr. K. Balasubramaniam : Capt. R. S. K. Raman

Dr. D. H. Somervell then took the chair for the scientific session. Dr. P. K. Kalyanaraman spoke on 'Cerebro-Vascular Accidents-Aetiology. Pathology, Symptoms, Signs and Treatment'. He dealt in detail with cerebral thrombosis, embolism, sub-arachnoid haemorrhage, cerebral haemorrhage, their differential diagnosis and treatment. A discussion followed and questions were answered.

Dr. T. K. Rithuparnan spoke on 'Some Gastrointestinal Diseases and their X-ray Appearances'. The lecturer showed some 40 well-taken x-ray photographs illustrating various diseases of gastrointestinal tract. He also gave some hints with regard to false positive pictures.

The president, Dr. D. H. Somervell summed up the talks and also gave his own experiences.

There was a dinner after the clinical meeting. Messrs. Citadel Fine Pharmaceuticals and Erode Medical Supplies (Pvt.) Ltd. were the hosts.

#### **Madurai Branch:**

A monthly meeting of the Madura Medical Association was held on Saturday, the 21st July 1962, under the presidentship of Dr. K. Ramachandran, M. S., Madurai. Dr. C. Jayaraj Aiyandar, M. B., B. S., A. B. (Paediatric), Lecturer in Paediatrics, Madurai Medical College, and Paediatric Physician, Government Erskine Hospital, Madurai, gave an interesting lecture on 'Paediatric Problems in General Practice'.

#### **Nilgiri Branch:**

The monthly meeting of the Nilgiri District Branch of I. M. A. was held at the Govt. Headquarters Hospital, Ootacamund on 4th August 1962 with Dr. P. V. Kurian in the chair.

Dr. P. K. Duraiswamy, M. B., M. Ch., F. R. C. S., Director, Central Institute of Orthopaedics, New Delhi addressed the members on 'Common Fractures in General Practice'. The distinguished speaker, in his masterly way, dealt with all the common fractures of the limbs, the spine and the skull and the practical methods of the management of these. He specially emphasized the occasions when a specialist should be called in. Several members asked questions on points raised by the speaker.

**Ramanathapuram Branch :**

An ordinary meeting of the Ramnad District Branch of I. M. A. was held at the premises of the G. S. Hindu School, Srivilliputtur on Saturday, the 14th July 1962 at 5 p. m.

In addition to the large number of members of the branch, Dr. C. Nathamuni Naidu, President of Madras State Branch, I. M. A., and T. V. Srinivasan and Dr. V. Samuel, Vice-Presidents, Dr. Pattabi, State Secretary and a few state council members attended the function which commenced after a group photo and tea. The secretary welcomed the gathering and the speakers Dr. C. N. Santhanam, M. S., of Coimbatore, Dr. Kameswaran, M. B., F. R. C. S., D. L. O., Madurai, Dr. Mrs. Lalitha Kameswaran, M. B., B. S., Ph. D. (Lond.) of Madurai and Dr. Srinivasan, M. B., B. S., of Madurai. Dr. C. N. Santhanam gave an interesting lecture on 'Surgical Emergencies in the Neonatal Period'. He also showed a few slides. Then Dr. Mrs. Lalitha Kameswaran talked about 'Allergy and its Scientific Aspects'. Dr. Kameswaran emphasised the very important allergic manifestations in E. N. T. Dr. Srinivasan touched upon 'Allergy in General Medicine'.

**Salem Branch :**

An ordinary monthly meeting of the I. M. A., Salem branch was held on the 11th of August 1962 at 6 p. m. in the Centenary Hall in the Headquarters Hospital, Salem, Dr. Jayaramachandran presiding. Dr. M. Manuel, Professor and head of the department of Obstetrics and Gynaecology, Christian Medical College and Hospital, Vellore spoke on the 'Uses and Abuses of Forceps'. Copies of the speech were distributed to the members. There was a discussion on the subject.

**Thanjavur Branch :**

1. Monthly meeting of the association was held on 26-11-1961 at the Medical School Buildings, R. M. Hospital, Thanjavur with Dr. P. A. K. Nair, the president in the chair. 35 doctors attended. Dr. T. V. Venkatesan, M. B., B. S., F. D. S., of Madurai spoke on 'The Recent Advances in Pharmacology and Therapeutics'. Dr. R. Gopala Mudaliar of Kuthanallur was 'At Home' to the gathering.

2. The monthly meeting of the association was held on 31-12-1961 at the Medical School Buildings, R. M. Hospital, Thanjavur, with the president, Dr. P. A. K. Nair in the chair. 27 doctors attended. Dr. C. N. Santhanam, M. S., Coimbatore spoke on 'Management of Retention of Urine'. Dr. K. Venkataraman, M. B., B. S., Southern Railway, Thanjavur was 'At Home' to the gathering.

3. The monthly meeting of the association was held on 25-2-1962 at the Medical School Buildings, R. M. Hospital, Thanjavur, with Dr. P. A. K. Nair in the chair. 42 doctors attended. A resolution requesting the Government of Madras to name the new hospital to be constructed



and attached to the Thanjavur Medical College 'Dr. Rangachari Hospital' as a fitting memorial to the eminent surgeon who hails from the district and instanced the parallel where the hospital attached to the Madurai Medical College has been named the 'Erskine Hospital'. Dr. L. Sivaraman, M. B., B. S., F. R. C. S., Honorary Civil Surgeon, R. M. Hospital, Thanjavur addressed the gathering on 'Bronchiectasis'. Dr. T. G. Subramanian, B. sc., M. B., B. S., was 'At Home' to the gathering.

4. The monthly meeting of the association was held on 25—3—1962 at the Medical School Buildings, R. M. Hospital, Thanjavur with Dr. P. A. K. Nair, president in the chair. Dr. H. D. Singh, M. B., B. S., M. sc., Principal, Thanjavur Medical College spoke on 'Pulmonary Function Tests'. Dr. S. V. Dikshidar, M. B., B. S., of Kuttalam was 'At Home' to the gathering. The meeting resolved to invite the Madras State Branch of the I. M. A. to hold its penultimate council meeting at Thanjavur in September 1962.

5. The monthly meeting of the association was held on 13—4—1962 at the Medical School Buildings, R. M. Hospital, Thanjavur with Dr. P. A. K. Nair, the president in the chair. A condolence resolution on the death of Dr. D. V. Venkappa of Madras was passed. Dr. M. Muthu, M. B., B. S., M. sc., Professor of Anatomy, Thanjavur Medical College spoke on 'Congenital Anomalies—Causative Factors'. There was a film show by M/s. Lederle Laboratories, Bombay, who were also the hosts of the evening.

6. The monthly meeting of the association was held on 6—5—1962 at the Medical School Buildings, R. M. Hospital, Thanjavur with Dr. P. A. K. Nair, president in the chair. 60 doctors attended. Dr. R. Subramanian, M. D., M. B. C. P. of the Madras Medical College spoke on 'Congenital Heart'. The president demonstrated a case of Fallots tetralogy. Vasu Clinical Laboratory, Thanjavur was 'At Home' to the gathering.

7. The monthly meeting of the association was held on 27—6—1962 at the Medical School Buildings, R. M. Hospital, Thanjavur with Dr. P. A. K. Nair, president in the chair. 27 doctors attended. The letter from the Director of Medical Services, Madras stating that the Government have not accepted the suggestion of our association to name the District Head Quarters Hospital, Thanjavur after the late Dr. Rangachari was read and adopted. Dr. T. K. Kanakaraj, M. S., of the Madurai Medical College spoke on 'Physio-pathological Complexes in Burns and their Managements'. Dr. T. Alagaraj, M. B., B. S., Thanjavur was 'At Home' to the gathering.

8. A special meeting of the association was held on 24—6—1962 at the Medical School Buildings, R. M. Hospital, Thanjavur with Dr. T. M. Pillai in the chair. 30 doctors attended. Dr. U. Sridhara Rao, B. sc., M. B. B. S., F. V. A. M., D. D. V., F. D. S., spoke on 'Modern Trends in Dermatology' with special reference to therapy. Dr. Miss D. Ethirajam, M. B., B. S., T. D. D., was 'At Home' to the gathering.